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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

VERBRUGGE, KEVIN

ART UNIT

PAPER NUMBER

2189

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/648,252

Applicant(s)

KIMURA ET AL.

Examiner

Kevin Verbrugge

Art Unit

2189

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/27/03, 12/22/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

Claims 1-4, 8, 12, and 13 are objected to because of the following informalities:

In claim 1, line 5, "share" should be changed to --shared--.

In claim 1, line 13, "share" should be changed to --shared--.

In claim 1, line 17, "share" should be changed to --shared--.

In claim 2, line 22, "supply" should be changed to --supplied--.

In claim 2, line 23, "share" should be changed to --shared--.

In claim 2, line 23, the phrase "required to provide with" should be changed to --provided to--.

In claim 3, line 28, "share" should be changed to --shared--.

In claim 4, line 6, "share" should be changed to --shared--.

In claim 4, line 7, "devicse" should be changed to --device--.

In claim 8, line 2, "share" should be changed to --shared--.

In claim 8, line 4, "share" should be changed to --shared--.

In claim 12, line 14, "share" should be changed to --shared--.

In claim 12, line 16, "share" should be changed to --shared--.

In claim 12, line 21, "share" should be changed to --shared--.

In claim 12, line 26, "share" should be changed to --shared--.

In claim 13, line 4, "share" should be changed to --shared--.

In claim 13, line 6, "share" should be changed to --shared--.

In claim 13, line 11, "share" should be changed to --shared--.

In claim 13, line 16, "share" should be changed to --shared--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1- 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what is meant by "segmented one another" in claim 1, line 7, claim 12, line 15, and claim 13, line 5.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 12, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication 2005/0021727 to Matsunami et al.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1, 3, 12, and 13, Matsunami shows the claimed data source device as his storage subsystem 1 and management console 4, shown in Fig. 1 and detailed in Figs. 3 and 5, respectively.

He shows the claimed disk device as LU0-LU6 and clearly teaches that there are private and shared volumes (see Figs. 4 and 6, for example).

He shows the claimed virtual volume management module and block mapping management module as memory unit 13 (which includes LUN management table, LU definition program, and access control program) and memory unit 44 (which includes LU management program).

He shows the claimed command receiving module as communication control circuit 14 and fibre channel interface control circuits 15a and 15b.

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Finally, he shows the claimed read out control module as access control program 133.

Regarding claim 2, Matsunami's device allows clients to perform the claimed remote boot (see paragraphs 32-38, 72-74, 102-104, 117, 127, and 129).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2005/0021727 to Matsunami et al.

Matsunami does not disclose the claimed node devices having a cache function. Proxy caches and other caching servers were well-known at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the claimed caching node devices to improve the speed of data transfer since caching nodes can be placed closer to clients and can satisfy some requests, leaving the primary server to process other requests. The various claimed modules are all inherent parts of caching nodes or proxy caches, acting to process requests as expeditiously as possible and requesting the data from the home server whenever the

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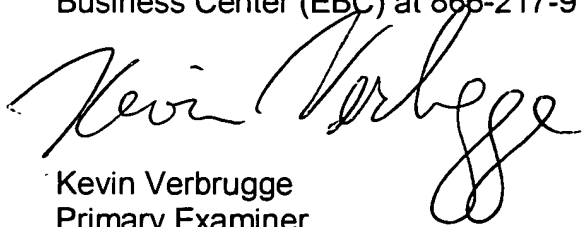
data is not stored in the proxy cache. The inability of the proxy cache to cache all possible data from the home server or data storage system makes the occasional request to the home server necessary when the data is not present in the proxy cache.

Conclusion

Any inquiry concerning this Office action should be directed to the Examiner by phone at (571) 272-4214.

Any response to this Office action should be labeled appropriately (including serial number, Art Unit 2189, and type of response) and mailed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, hand-carried or delivered to the Customer Service Window at the Randolph Building, 401 Dulany Street, Alexandria, VA 22313, or faxed to (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.



Kevin Verbrugge
Primary Examiner
Art Unit 2189